output signal $y_i(k)$ onto a vector \boldsymbol{p}_i which is assigned to this output signal $y_i(k)$; and if the number of output signals $y_i(k)$ is one:

- c1) feeding the output signal y_i(k) into a device for
 detection, especially equalization; or
 if the number or output signals y_i(k) is two or more:
 d1) summing of a majority, especially all of the
 output signals y_i(k) for forming a sum signal s(k); and
 d2) feeding the sum signal s(k) into a device for
- 2. (Amended) Method as recited in Claim 1, $\text{wherein at least two received signals } r_i(k) \text{ are }$ $\text{available and the corresponding at least two outputs } y_i(k)$ are projected onto identical vectors in step b).

detection, especially equalization.

- 8. (Amended) Method as recited in Claim 1, $\text{wherein the corresponding orthogonal complements of the } \\ \text{projections of at least one filtered output signal } y_i(k) \text{ are } \\ \text{calculated.}$
- 10. (Amended) System for interference suppression for TDMA and/or FDMA transmission, which at least approximately can

be described as pulse amplitude modulation, comprising

- an arbitrary number of receive antennas;
- at least one filter device with complex-valued coefficients $f_i(k)$ for filtering of at least one complex-valued received signal $r_i(k)$ of one receive antenna for forming at least one output signal $y_i(k)$;
- at least one projection device for forming a projection of the at least one output signal $y_i(k)$ onto a vector \boldsymbol{p}_i which is assigned to this output signal; and if the number of output signals $y_i(k)$ is one:
- a detection device which processes the output signal s(k); or

if the number or output signals $y_i\left(k\right)$ is two or more:

- a summation device for summing a majority, in $\label{eq:particular} \text{particular all output signals } y_i(k) \text{ for forming a sum signal } s(k); \text{ and }$
- a detection device which processes the sum signal s(k).

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